

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

UNITED STATES OF AMERICA,)	
)	
Plaintiff,)	
)	
v.)	Criminal Action No. 06-118-JJF
)	
KEVIN L. PEARSALL,)	
)	
Defendant.)	

**GOVERNMENT'S PROPOSED FINDINGS OF FACT AND
CONCLUSIONS OF LAW REGARDING GUNSHOT RESIDUE TESTING**

This Memorandum is submitted in response to the defendant's Amended Memorandum, dated February 6, 2007.

I. The Facts

A. The Arrest

On Saturday, April 8, 2006, at approximately 1:50 a.m., the Dover Police Department 911 operator received an anonymous telephone call advising that the caller had just observed "Kevin Pearsall" fire a handgun several times at a specific housing authority apartment complex in Dover, Delaware. The caller reported that Kevin Pearsall was wearing shorts and a white tee shirt and that he had placed the handgun in the waistband of his shorts. Dover P.D. dispatched four officers to the housing authority complex, including Officers Kuntzi and Bumgarner.

Upon arriving at the housing authority apartments, the Dover P.D. officers began looking for Pearsall. Officer Kuntzi was familiar with Pearsall, having arrested him seven days earlier at the

same housing authority apartments for trespassing.¹ Officer Kuntzi also was aware Pearsall was a felon. Pearsall has the following convictions: Robbery Second Degree - 4/11/02; Delivery/Possession With Intent to Distribute a Controlled Substance - 4/25/00; Burglary Third Degree and Conspiracy Second Degree - 10/27/99.

About this same time, a 20-year old female resident of the apartment complex, wearing shorts and a white tee shirt, left her apartment for the purpose of attempting to locate and buy crack cocaine. Earlier she heard gunshots outside her apartment. On the grounds of the housing authority buildings, the 20-year old woman saw Kevin Pearsall from a distance. She was familiar with Pearsall, as she had purchased small amounts of crack from him on the grounds of the housing authority approximately 15 times over the preceding several months. Pearsall called to the woman by name and she approached him. Pearsall was drunk, loud, disorderly, and brandishing a handgun, a 9mm semi-automatic pistol. Pearsall asked the 20-year old woman to hold the gun for him. She and Pearsall walked to the front of Building 459, New Castle Avenue, and sat on a bench. The 20-year old woman had Pearsall's gun concealed in the waistband of her shorts and beneath her white tee shirt. Shortly thereafter, Leslie B., a male, joined them on the bench. Leslie B. was unaware of the handgun.

Shortly after the four Dover P.D. officers arrived at the housing authority, the same anonymous caller again contacted the Dover P.D. 911 operator and reported that Kevin Pearsall was sitting in front of 459 New Castle Avenue; that Pearsall had passed his handgun off to a female wearing a

¹ On March 3, 2000, Pearsall was banned from the housing authority apartment complex. On August 1, 2006, area residents called Dover P.D. complaining about Pearsall, specifically referring to him by name and reporting that he was involved in several fights and starting trouble in the area.

white tee shirt and shorts; and that both were seated next to one another. Approximately one minute later officers responded to this location and found the described 20-year old woman and Pearsall sitting on a bench. Officer Bumgarner observed that the 20-year old woman had an object concealed in the front of her shorts and asked her to stand up. When she did so, she held her hands over the object in her shorts. Officer Bumgarner then took from the 20-year old woman the 9mm semi-automatic pistol and placed her in custody. Officer Kuntzi then arrested Pearsall, who smelled of alcohol. His eyes were glassy and bloodshot. No spent shell casings were located by the police officers. The 20-year old woman and Pearsall were transported to Dover P.D. Headquarters in separate police vehicles and then placed in separate holding cells. Leslie B., who also was banned from the area, was arrested for trespassing. He explained to police that he had arrived at the bench just moments before the police and was not aware of any gun.

At Dover Headquarters Pearsall said he was homeless and declined to make a statement.

While Pearsall remained alone in his holding cell, Officer Kuntzi interviewed with the 20-year old woman, who advised that Pearsall had given her his gun to hold shortly before they were approached by the Dover P.D. officers. She further advised that Leslie B. arrived at the bench after she and the defendant sat down, and very shortly before the police arrived. She believed Leslie B. was unaware of the gun. (Weeks later the 20-year old woman entered a guilty plea in Superior Court to carrying a concealed deadly weapon.)

Afterwards, Officer Kuntzi went to Pearsall's holding cell where he was passed out/sleeping. Officer Kuntzi had not handled the referenced pistol. After donning rubber gloves, Officer Kuntzi sampled both of Pearsall's hands, using a gunshot residue test kit. The officer took three samples. The first sample utilized a simple cloth swab removed from an envelope. Officer Kuntzi swabbed

Pearsall's right hand with the cloth, which resulted in a positive field test.² Officer Kuntzi then took separate samples from Pearsall's hands. This part of the test kit utilized two separate adhesive surfaces both protected by replaceable covers. Officer Kuntzi used these adhesive surfaces to separately sample Pearsall's hands, and then resealed the sampling devices. The sample kit was maintained by Dover P.D. before being given to SA David DeBetta, ATF, who, in turn, mailed the samples to the RJ Lee Group, Inc., for testing. Alfred J. Schwoeble³ is that lab's Director.

The handgun was processed for fingerprints, but no prints of value were detected.

B. The Science

Gunshot residue (GSR) originates in part from the firearm, the cartridge case, and the bullet, with most of the organic residue resulting from the primer. When a semi-automatic handgun is fired, gases escape not only from the barrel but also from the slide the other rear portions of the handgun that are not air-tight. The expelled gas contains microscopic particles of lead (Pb), antimony (Sb), and barium (Ba). Particles "unique" to GSR and not otherwise found in nature are created when the high temperature caused by a firearm discharge fuses these three particles of lead, antimony and barium into a single spherical shape.

² The first part of the GSR test kit is a field test. The field test simply discloses nitrates with a blue coloring. Officer Kuntzi performed the field test on Pearsall's right hand because the officer had seen Pearsall use that hand to write. The Government's expert later would determine that while the field test sample contained nitrates, common to gunpowder, it did not contain gunshot residue.

³ A Westlaw search for the name "Schwoeble" demonstrates that he has testified extensively as an expert in gunshot residue evidence. *Commonwealth v. Reid*, 811 A.2d 530, 542 (Supreme Court of Pennsylvania 2002); *State v. Taylor*, 781 So. 2d 1205 (Supreme Court of Louisiana 2001); *State v. Gilcreast*, 2003 WL23094872 (Court of Appeals of Ohio 2003); *State v. Brister*, 2005 WL1005278 (Court of Appeals of Ohio 2005); *State v. Brashears*, 902 So. 2d 536 (Court of Appeals of Louisiana 2005).

Spherical particles containing only two of the three referenced elements are deemed “consistent-with” GSR. A particle consisting of only one of the three referenced elements is identified as a single component particle.

On the sample taken by Officer Kuntzi from the defendant’s left hand, the RJ Lee Group, Inc., found one particle “unique” to GSR, three “consistent-with” particles, and eight single component particles. As to the sample from the defendant’s right hand, the lab found no “unique” particles, one “consistent-with” particle, and six single component particles. In its final report, the RJ Lee Group Lab wrote:

Particles confirmed as being unique to or consistent with GSR could have resulted from [1] the discharge of a firearm, [2] being in close proximity to a discharging firearm or [3] from contact with a surface contaminated with GSR.

The defendant attaches to his memorandum a SUMMARY OF THE FBI LABORATORY’S GUNSHOT RESIDUE SYMPOSIUM, MAY 31 - JUNE 3, 2005 (the FBI’s GSR Summary). It explains that “[i]n early 2005 approximately 40 scientists representing local, state, federal, international, and private laboratories were invited to attend an FBI sponsored symposium dedicated to topics relevant to the detection and significance of GSR analyses.”⁴ The FBI’s GSR Summary included the following note:

The FBI Laboratory continues to believe that the GSR examination is valuable but has decided to use the resources previously dedicated to GSR in areas directly related to fighting terrorism, which is the FBI’s primary mission.

Editor’s Note, p. 14.

⁴ Alfred J. Schwoeble, representing the RJ Lee Group Lab, was a symposium participant and expressly recognized in the FBI’s GSR Summary for his contributions. Summary at p. 10.

Important aspects of the FBI's GSR Summary are quoted below:

With respect to the significance of the results obtained, most experts felt that even one PbBaSb spheroid particle is enough for a "positive" result. However, almost all of the attending experts agreed that GSR particles alone cannot be attributed to a particular shooting event. It also cannot be determined what exactly occurred with respect to a shooter's hands between the time of the shooting and sampling.

* * *

A majority of the attendees reiterated throughout these discussions that a qualifying statement is needed in reports. The following example is considered an appropriate qualifying statement to use when particles are found on a person's hands: the findings are "consistent with that person's having fired a weapon, having been in the vicinity of a fired weapon, or having touched an item with gunshot residue on it."

* * *

Many of the responding attendees agreed that it is good practice to compare residue found on the suspect to the shooting event through examination of the firearm, spent ammunition from the scene, or the victims' clothing; however, it is not essential to do so.

Significance and Report Writing, p. 11-12.

* * *

All participants agreed that GSR sampling should be done at the scene where permissible. . . . Almost all participants agreed that if the subject's hands could not be sampled before placing the subject in a police vehicle, the subject's hands should be bagged in order to prevent possible contamination.

* * *

The majority further agreed that it is possible for a handcuffed person's hands to be contaminated by the prior presence of GSR in the backseat of a police vehicle. However, if asked in court how likely it is for a handcuffed person's hands to be contaminated in the backseat of a police vehicle, most GSR experts would answer, "I don't know."

* * *

It is widely agreed that the average person who is not exposed to firearms or ammunition or its components will not be found to have GSR particles on the hands.

Hands Sampling and Contamination, p. 4-6.

Before discussing acceptance criteria, the participants agreed that the most probative value of GSR examination occurs in a case where the subject claims to have not handled or fired a firearm.

Case Acceptance Criteria, p. 7.

In his Memorandum, the defendant reports that he intends to present the testimony of John W. McKilty, former chief of the FBI Laboratory, Gunshot Residue and Metals Analysis Unit. The defendant writes:

Mr. McKilty ... would also clarify that, although the FBI Laboratory no longer performs gunshot residue analysis, it established a threshold of three particles unique to gunshot residue. Mr. McKilty will note that he is in agreement with the West Virginia State Police Laboratory field manual which provides no particular threshold, but warns that "the quantity and location of the particles used have *no bearing* on the circumstances during the incident. Specifically, finding gunshot residue does not necessarily mean that it was the sampled subject who pulled the trigger. . . ." Finally, Mr. McKilty will opine that there is no generally accepted standard in the relevant scientific community regarding the number of particles required to support a conclusion that the subject has recently fired, or was in close proximity to a firearm that was discharged.

The Defendant's Memorandum, p. 6.

II. The Law

In *United States v. Trala*, 386 F. 3d 536 (3d Cir. 2004), the Third Circuit summarized a trial court's responsibilities under *Daubert v. Merrill Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993), as follows:

In *Daubert*, the U.S. Supreme Court interpreted and applied Rule 702, which replaced the common law rule requiring "general acceptance" for the admissibility of scientific evidence with a standard requiring an "assessment of whether the reasoning or methodology underlying the testimony is scientifically valid and of whether that reasoning or methodology properly can be applied to the facts in issue." *Daubert v. Merrill Dow*

Pharmaceuticals, 509 U.S. at 586, 592-3. The Court held that “the Rules of Evidence-especially Rule 702-do assign to the trial judge the task of ensuring that an expert’s testimony both rests on a reliable foundation and is relevant to the task at hand.” *Id* at 597.

Id. at 541-42.

As to evidence of gunshot residue, the Supreme Court of Louisiana has observed, “Gunshot residue detection is not a new science. This Court has recognized experts in this field since 1981.” *State v. Robinson*, 874 So.2d 66 (2004). This science also is well recognized and received into evidence by federal courts without the necessity of *Daubert* hearings. *United States v. Caldwell*, 182 F.Ed. Appx. 227 (4th Cir. 2006); *United States v. Simpson*, 2007 WL163053 (4th Cir. 2007); *Herrera v. Lamaster*, 149 Fed. Appx. 791 (10th Cir. 2005); *Bell v. Bell*, 460 F.3d 739 (6th Cir. 2006).

In *United States v. Paloscio*, 2002 WL 1585835 (S.D.N.Y. 2002), the district court denied a pretrial motion to exclude evidence of gunshot residue, writing:

The results of the testing, which was done through scientifically based techniques for identifying GSR, are admissible under the requirements set forth in Fed. R. Evid. 702, and in *Daubert v. Merrill Dow Pharms., Inc.* 509 U.S. 589 (1993)., and *Kumho Tire Co. v. Carmichael*, 529 U.S. (1999), and their progeny. Defendant has advanced several challenges to the application of those techniques in the present case: such challenges, in the Court’s estimation, go to the weight of the expert testimony, but do not render it inadmissible.

Id at 1-2.

In *United States v. Bonugli*, 162 Fed. Appx. 326 (5th Cir 2006), the 5th Circuit similarly responded to an issue of possible GSR contamination: “Bonugli’s contentions...that the gunshot residue particles likely came from the hands of the officers who handcuffed him go to the weight of the evidence rather than its admissibility.”

A district court is given broad discretion in deciding the admissibility of expert testimony. *Trala* at 541.

In the instant matter the defendant's *Daubert* challenge is limited. The defendant does not argue that the scientific methodology underlying the laboratory work of the government's GSR expert is unreliable. "Defendant contest[s] only the admissibility of the Government's experts' conclusion that the laboratory test results support the opinion that Mr. Pearsall may have fired a gun, or [been] in close proximity to a gun as it was discharged."⁵ Defendant's Memorandum, p.1.

The defendant contends that the conclusions of the government's expert lack a sufficient basis because the expert: 1) reports three possible explanations for the source of the GSR; 2) cannot "match" the GSR to the seized handgun and any spent casings; 3) found only a single particle "unique" to GSR; 4) did not examine samples taken from the defendant's clothing, or from the 20-year old woman and Leslie B., and; 5) relies upon Dover P.D.'s allegedly faulty evidence gathering techniques. The defendant's contentions are contradicted by both the FBI's GSR Summary and the proposed testimony of the defendant's expert.

1) Three alternate explanations for the GSR's source

The opinion of the government's expert complies with the qualification statement concerning particles found on a person's hands, as set forth in the FBI's GSR Summary:

A majority of the attendees reiterated throughout these discussions that a qualifying statement is needed in reports. The following example is considered an appropriate qualifying statement to use when particles are found on a person's hands: the findings are "consistent with that person's having fired a weapon, having been in the vicinity of a fired weapon, or having touched an item with gunshot residue on it."

⁵ The defendant misstates the opinion of the government's expert, who further concludes that GSR "could have resulted from ... contact with a surface contaminated with GSR."

Thus, the alternate explanations are appropriate.

2) No 'match' to the 9mm pistol or spend casings

The FBI's GSR Summary reports that "almost all of the attending experts agreed that GSR particles alone cannot be attributed to a particular shooting event." Summary, p.11. Additionally, the defendant does not proffer evidence that GSR particles, like ballistics, can be matched.

3) A single unique particle

The FBI's GSR Summary expressly provides that "even one [unique] particle is enough for a 'positive' result." Even the defendant's expert does not believe in a particular threshold. He believes that "the quantity...of the particles usually have *no bearing* on the circumstances of the incident." Defendant's Memo., p. 6.

The defendant confuses the difference between the opinion of the government's expert and an opinion that the suspect either fired a gun⁶ or was near someone who fired a gun. As to the later opinion, the FBI's GSR Summary does not set any particle threshold. However, the Summary does state that "the number of particles cannot be used as a basis for determining if someone fired, or was merely in the vicinity of, a recently discharged." Summary, p.7.

4) The defendant's clothing, the 20 year woman and Leslie B.

The failure of the police to collect samples from the defendant's clothing, the 20-year old woman and Leslie B. has no significance in specific relation to *Daubert*.

5) The Dover PD evidence collecting methods.

The defendant contends that his hands could have become contaminated with GSR after his arrest. In this regard, the defendant and the 20 year old woman were transported to Dover PD

⁶ The Government's burden is to prove the defendant possessed, not fired, a gun.

Headquarters in separate vehicles and placed in separate holding cells. The defendant's potential contact with surfaces within the holding cell was minimized by the fact that he was sleeping/passed out when his hands were sampled. Prior to taking the samples, Officer Kuntzi did not handle the pistol in question and put on plastic gloves.

The defendant can only speculate as to whether GSR migrated to his hands from the police officers' handcuffs or squad car. If such occurred, it was because the GSR had rubbed off the hands of others persons. This demonstrates that it is as likely that while the defendant was handcuffed and placed in the patrol car GSR was removed from the defendant's hands.

The United States cannot guarantee that the defendant's hands were not contaminated with GSR after his arrest. Similarly, the United States also cannot guarantee that the defendant was not contaminated with GSR upon his trespassing arrest several days earlier by Officer Kuntzi.

Daubert does not serve to render scientific evidence inadmissible when there is no guarantee against contamination. By way of example, when a suspect's DNA is found on a handgun there is no guarantee that the suspect handled the gun. The suspect could have sneezed or coughed on the gun. The suspect's DNA could have been transferred by his discarded clothing in the hands of a third party, or by a third party who had touched the suspect or handled the suspect's possessions. Any possibility of contamination of the defendant's hands with GSR after his initial encounter with police is a matter which goes to the weight of the evidence, not its admissibility. See *Palascio and Bonugli*.

The Minnesota case of *State v. Jason Moua*, Court File No. K5-05-7335 (Anoka County Court, July 7, 2006), is distinguishable from the instant matter by both the expert's opinion and the police evidence gathering methods.

In *Moua*, Alfred J. Schwoeble's opinion, as written in his report, was not what he intended. His report indicated, in summary, that the relevant GSR was the result of shooting a gun, being in close proximity to a fired gun, or touching A GUN OR AMMUNITION. Mr. Schwoeble testified that he meant the report to read - or touching A SURFACE CONTAMINATED WITH GSR. *Moua* at 10. Such a surface could include, but is not limited to, a gun. The Judge in *Moua* erroneously rendered his opinion exclusively based on Mr. Schwoeble's written opinion, not his opinion as corrected by his testimony. The police sampling methods also are to distinguished.

In *Moua*, before that defendant's hands were sampled, he had been in a car with persons who admitted to having fired a gun or being in close proximity to a fired gun. The defendant was handcuffed together with 8 other suspects, whose hands were observed to be touching, and upon being ordered to wash his hands was observed scrubbing his hands and arms up to his elbows. Additionally, all suspects were sampled at the same table which was not properly cleaned between suspects. These conditions do not exist in the instant mater.

The United States respectfully submits that *Moua* was incorrectly decided. That court disregarded that Mr. Schwoeble corrected his written opinion, which is in conformity with the FBI's GSA Summary. While the Minnesota police officers did not maximize the potential against contamination, that issue concerns the weight, not the admissibility, of the evidence.

Finally, the probative value of the Government's GSR evidence is not "substantially outweighed by the danger of unfair prejudice, confusion of the issues, or misleading the jury, or by considerations of undue delay, waste of time, or needless presentation of cumulative evidence." Fed. R. Evid. 403. At trial the defendant can be expected to strenuously challenge the credibility of the 20-year old woman. Accordingly, the evidence is neither cumulative nor unnecessary. The historical

acceptance of GSR testimony in Federal and State courts is evidence that the subject matter is not confusing and misleading to a jury. The defendant can demonstrate no unfair prejudice, as the Government's evidence comports with the findings set forth in the FBI's GSR Summary.

The possibility of contamination does not render meaningless the opinions of the government's expert. In *United States v. Graves*, 2006 WL3734367 (E.D. Pa. 2006), the court admitted the government's DNA evidence over objection. The Court wrote:

Although the Third Circuit has not addressed directly the admissibility of DNA evidence of low statistical significance under Rule 403, it has stated that "overtly probabilistic evidence is no less probative of legally material facts and other types of evidence." *Hannigan*, 27 F.3d at 893.

Similarly, in the instant case, the probative value of the government's GSR evidence is not significantly outweighed by the considerations of Rule 403.

COLM F. CONNOLLY
United States Attorney

By: 

Edmond Falgowski
Assistant United States Attorney

Dated: 2-13-07

CERTIFICATE OF SERVICE

UNITED STATES OF AMERICA)	
)	
v.)	Criminal Action No. 06-118-JJF
)	
KEVIN L. PEARSALL,)	

I, Sharon Bernardo, an employee of the United States Attorney's Office, hereby certify that on February 13, 2007, I electronically filed the foregoing:

MOTION AND ORDER TO DISMISS

with the Clerk of the Court using the CM/ECF which will send notification of such filing to:

Christopher Koyste, Esquire
Federal Public Defender's Office
First Federal Plaza, Suite 110
704 King Street
Wilmington, DE 19801
ecf_ck@msn.com

Sharon L. Bernardo